



Total Solution Provider in Saw Device

SL14510BD1

145.0 MHz IF SAW Filter
9.90 MHz Bandwidth
Revision 0: 10. June. 2008



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
-

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□ Electrical Characteristics

Maximum Ratings

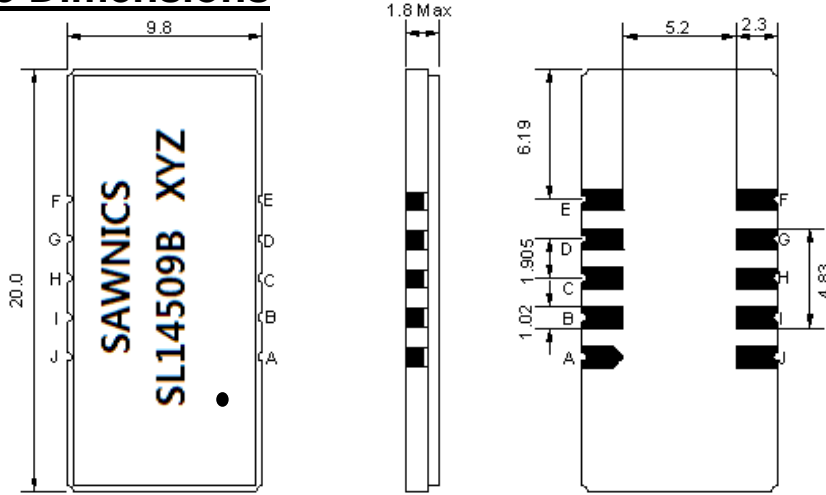
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-30	-	80
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	D1			
Length x Width	mm ²	-	20.0 x 9.8	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	144.85	145.00	145.15
Insertion Loss at Fo	dB	-	15.5	18.0
Group Delay Variation (Fo±4.5MHz)	ns	-	45	100
Absolute Delay	us	-	1.42	-
Passband Ripple (Fo±4.5MHz)	dB	-	0.40	1.0
Bandwidth at -1dB	MHz	9.70	9.90	-
Bandwidth at -3dB	MHz	-	10.43	-
Bandwidth at -20dB	MHz	-	11.72	-
Bandwidth at -40dB	MHz	-	12.66	13.00
Ultimate Rejection	dB	-	50	-
Temperature coefficient	ppm/°C	-	-18	-

Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

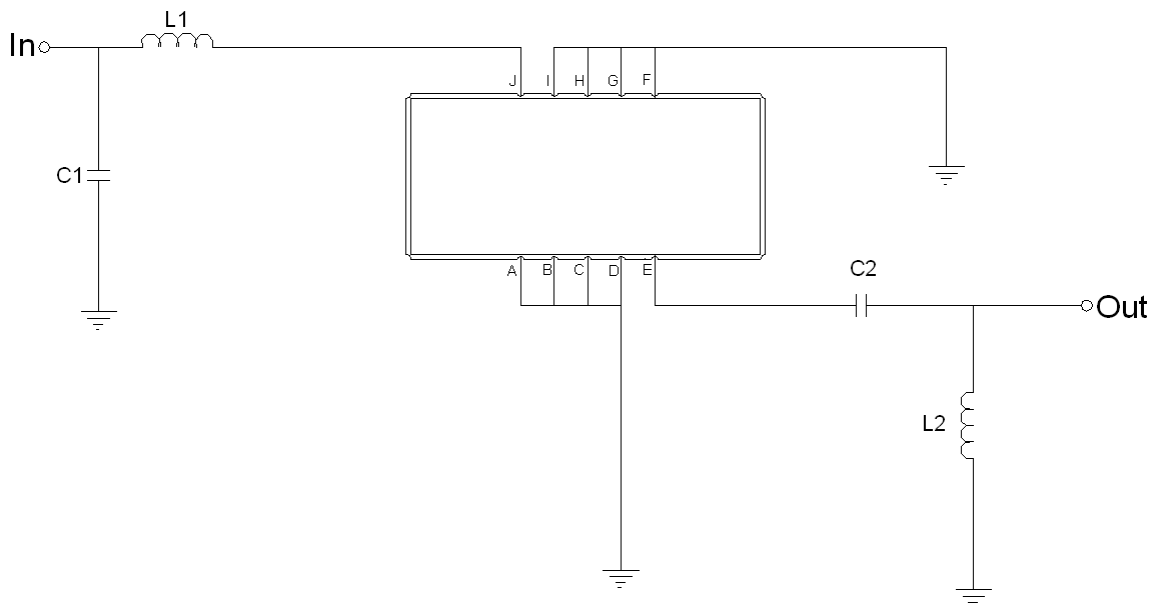
Package Dimensions



- ① SAWNICS: Brand
- ② SL14510B: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

Pin Description	
A, B, C, D, F, G, H, I	Ground
J	Input
E	Output

Testing Environment

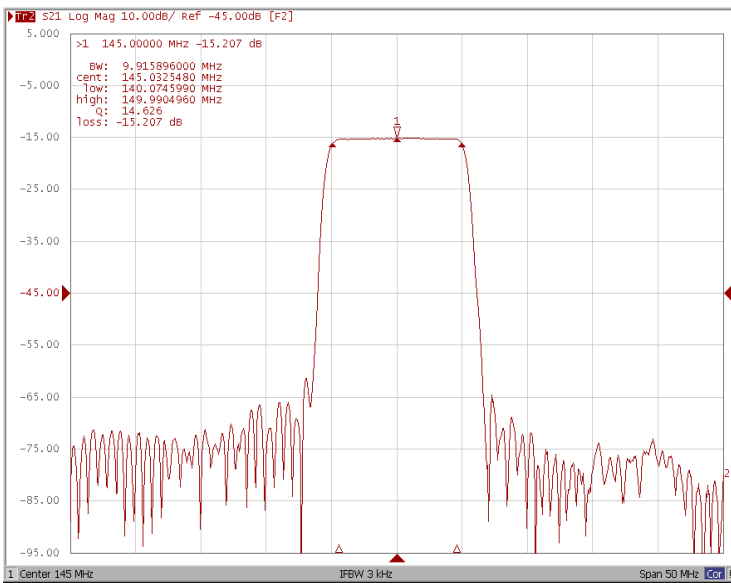


Test Fixture & Values	
Input	L1=33nH, C1=68pF
Output	L2=18nH, C2=150pF
Source/Load Impedance	50 Ω

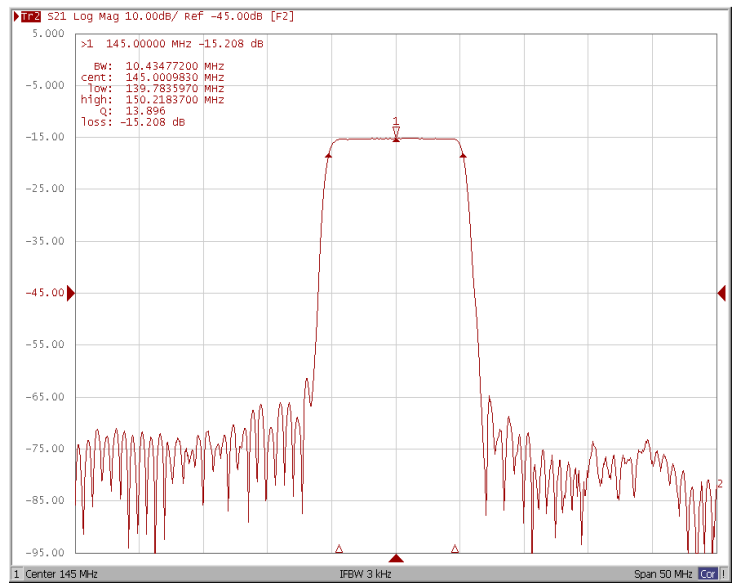
□ Frequency Characteristics

Frequency Response

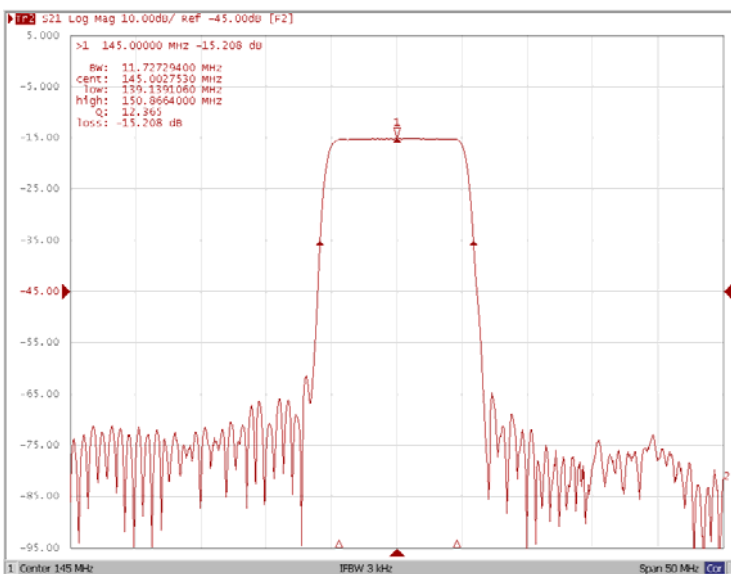
Bandwidth at -1.0 dB



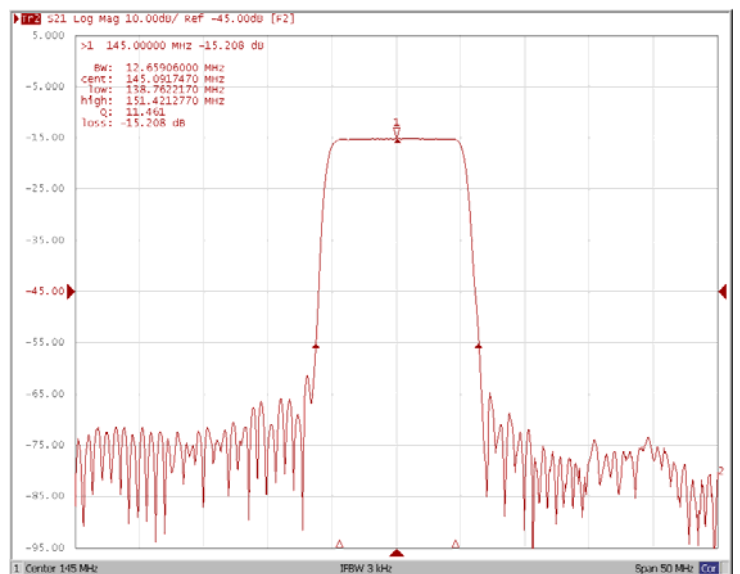
Bandwidth at -3.0 dB



Bandwidth at -20.0 dB



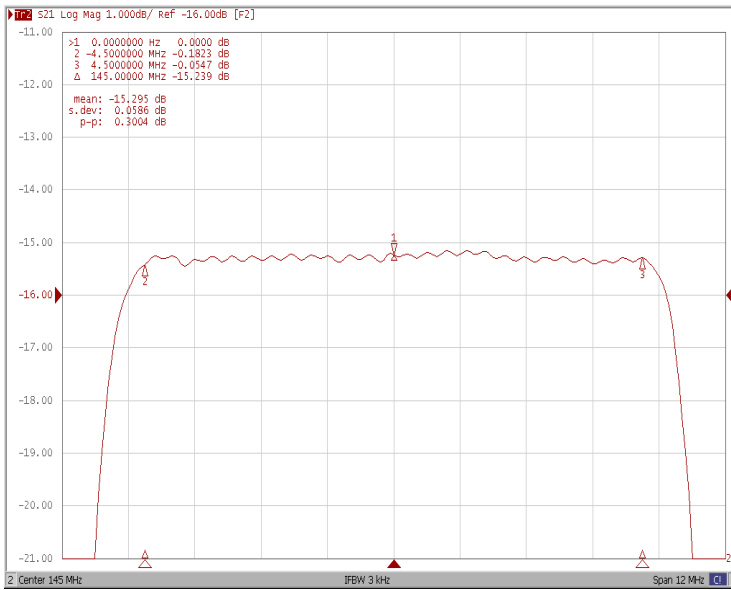
Bandwidth at -40.0 dB



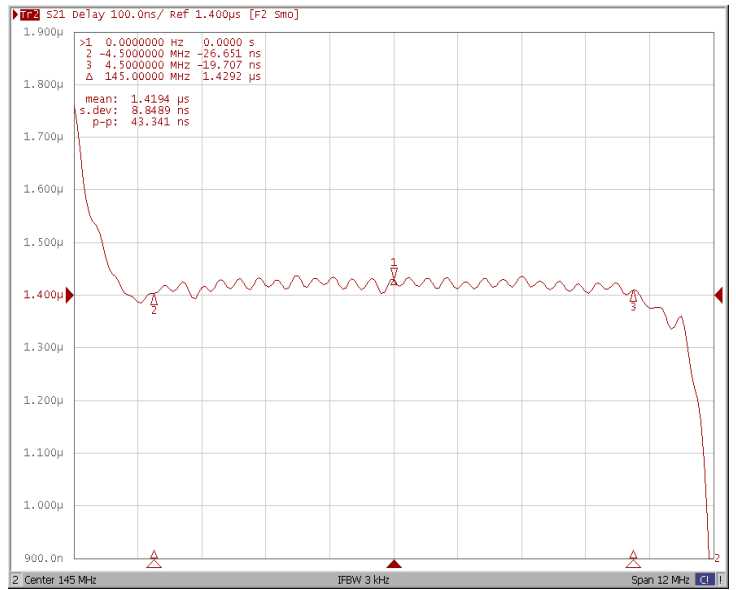
□ Frequency Characteristics

Frequency Response

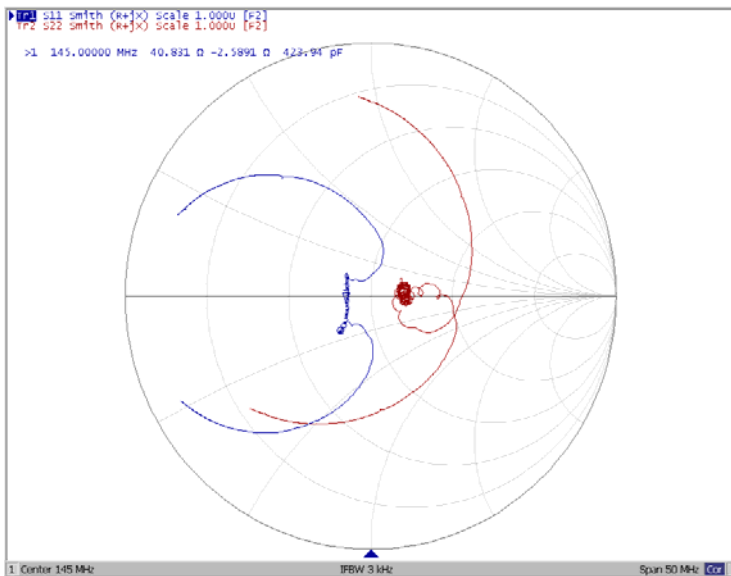
Ripple Variation $F_o \pm 4.5\text{MHz}$



Group Delay Variation $F_o \pm 4.5\text{MHz}$



Smith Chart



VSWR

